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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* SEEMANT CHOUDHARY, TAKESHI HOSHIDA, and  
MICHAEL C. PARKER

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Appeal 2008-4247  
Application 10/052,886  
Technology Center 2600

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Decided: November 26, 2008

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Before KENNETH W. HAIRSTON, JOSEPH F. RUGGIERO, and  
MAHSHID D. SAADAT, *Administrative Patent Judges*.

RUGGIERO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Final Rejection of  
claims 12, 14-19, 37, 39-50, and 52. Claims 13, 38, and 54 have been

canceled, and claims 1-11, 20-36, 51, and 53 have been withdrawn from consideration. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' claimed invention relates to a system and method for multi-level phase modulated communication in communication networks.  
(Spec. 1)

Claim 12 is illustrative of the invention and reads as follows:

12. A method for receiving a signal, comprising:
  - generating a polarized local signal based on receiver-side feedback;
  - combining an ingress traffic signal with the polarized local signal to generate a combined signal, wherein the ingress traffic signal is compensated for polarization mode dispersion;
  - splitting the combined signal into a first split signal and second split signal;
  - detecting the first split signal; and
  - detecting the second split signal.

The Examiner relies on the following prior art references to show unpatentability:

M. C. Brain et al. (Brain), "Progress Towards the Field Deployment of Coherent Optical Fiber Systems," Journal of Light Wave Technology, Vol. 8, No. 3, 423-37 (1990).

Reinhold Noe et al. (Noe), "Comparison of Polarization Handling Methods in Coherent Optical Systems," Journal of Lightwave Technology, Vol. 9, No. 10, 1353-66 (1991).

Claims 12 and 15-19 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Noe.

Claims 14, 37, 39-50, and 52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noe in view of Brain.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs and Answer for the respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived [see 37 C.F.R. § 41.37(c)(1)(vii)].

## ISSUES

- (i) Under 35 U.S.C. § 102(e), does Noe have a disclosure which anticipates the invention set forth in claims 12 and 15-19?
- (ii) Under 35 U.S.C. § 103(a), with respect to appealed claims 14, 37, 39-50, and 52, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Noe with Brain to render the claimed invention unpatentable?

## FINDINGS OF FACT

The relevant facts are:

1. Appellants have invented a method and system for receiving a signal which includes generating a polarized local signal based on receiver-side feedback. An ingress traffic signal, which is compensated for polarization mode dispersion is combined with the polarized local signal. The combined signal is split into first and second split signals which are

detected and transmitted to a decision circuit which generates a feedback signal to modify the local signal. (Spec. 3:2-4:2).

2. Noe discloses (Figure 9) the combining of a polarized local signal LO based on receiver-side feedback with an ingress traffic signal to generate a combined signal PMC.

3. Noe further discloses (Figure 9) the splitting of the combined signal into first and second split signals and the detection of the first and second split signals.

4. Noe also discloses (Figures 10-13, pages 1358-1360) compensation for polarization mode dispersion (PMD).

5. Brain discloses (Figure 1) the control of the polarization of the local signal to generate a properly polarized local signal to maximize the IF signal at the receiver output.

## PRINCIPLES OF LAW

### 1. ANTICIPATION

It is axiomatic that anticipation of a claim under § 102 can be found if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375-76 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565 (Fed.

Cir. 1992). Anticipation of a patent claim requires a finding that the claim at issue “reads on” a prior art reference. *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346 (Fed Cir. 1999) (“In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.”) (internal citations omitted).

## 2. OBVIOUSNESS

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Furthermore, “‘there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007)(quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

## ANALYSIS

### 35 U.S.C. § 102(b) REJECTION

With respect to appealed independent claim 12, the Examiner indicates (Ans. 3-4) how the various limitations are read on the disclosure of Noe. In particular, the Examiner points to the illustration in Figure 9 of Noe, as well as the disclosure at pages 1359 and 1360 of Noe.

Appellants' arguments in response assert that the Examiner has not shown how each of the claimed features is present in the disclosure of Noe so as to establish a case of anticipation. In particular, Appellants' arguments focus on the contention that, in contrast to the claimed invention in which the ingress traffic signal is compensated for polarization mode dispersion (PMD), any PMD compensation in Noe is performed at the receiver and only after the ingress signal is combined with the local signal LO at coupler PMC. According to Appellants (App. Br. 13-14; Reply Br. 2-3), the claimed invention is distinguished from the polarization diversity receiver system illustrated in Figure 9 of Noe because, in Appellants' system, the ingress signal is compensated for PMD *before* it is combined with the local oscillator signal and then split.

After reviewing the language of appealed independent claim 12 in light of Appellants' arguments, however, we find that such arguments are not commensurate with the scope of the claim. "It is axiomatic that, in proceedings before the PTO, claims in an application are to be given their broadest reasonable interpretation consistent with the specification, and that claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art." In re Sneed, 710 F.2d 1544, 1548 (Fed. Cir. 1983)(citations omitted). Moreover, limitations are not to be

read into the claims from the specification. In re Van Geuns, 988 F.2d 1181, 1184 (Fed. Cir. 1993) citing In re Zletz, 893 F.2d 319, 321 (Fed. Cir. 1989).

While we do not necessarily disagree with Appellants that the polarization diversity receiver system of Noe performs differently than the system *disclosed* by Appellants, it is the *claimed* invention that is before us on appeal. In our view, to whatever extent Appellants are relying on the feature of PMD compensation of an ingress signal before it is combined with a local signal, i.e., the PMD compensation of the ingress signal alone, such a feature is not set forth in the language of the appealed claims. In our opinion, Appellants' arguments improperly attempt to narrow the scope of the claim by implicitly adding disclosed limitations which have no basis in the claim. See In re Morris, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997).

With the above discussion in mind, we are of the view that the Examiner has construed the language of the "wherein" clause at line 4 of claim 12 in a reasonable manner. As pointed out by the Examiner (Ans. 8-9), the appearance of the "wherein" clause immediately after the positively recited step of "combining" reasonably leads to the interpretation that it is the combining of the ingress signal and the local signal that results in the PMD compensation of the ingress traffic signal. We further find no error, and there are no convincing arguments to the contrary from Appellants, in the Examiner's finding (*id.*) that ample evidence exists in Noe (Figures 9-13, pages 1358-1360) to support the position that polarization mode dispersion (PMD) compensation is occurring in the receiver system of Noe.

In view of the above discussion, since all of the claimed limitations are present in the disclosure of Noe, the Examiner's 35 U.S.C. § 102(b)



rejection of independent claim 12, as well as dependent claims 15-19 not separately argued by Appellants, is sustained.

### 35 U.S.C. § 103(a) REJECTION

We also sustain the Examiner's obviousness rejection of claims 14, 37, 39-50, and 52 based on the combination of Noe and Brain. We find no error in the Examiner's line of reasoning (Ans. 4-7) establishing a basis for modifying the disclosure of Noe by adding the teachings of Brain to address the features of the rejected claims. Appellants (App. Br. 14) have made no separate arguments for patentability of claims 14, 37, 39-50, and 52 but, instead, have relied on arguments with respect to Noe made against the rejection of independent claim 12, which arguments we found to be unpersuasive as discussed *supra*.

### CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that Appellants have not shown that the Examiner erred in rejecting claims 12 and 15-19 for anticipation under 35 U.S.C. § 102(b), nor in rejecting claims 14, 37, 39-50, and 52 for obviousness under 35 U.S.C. § 103(a).

DECISION

The Examiner's decision rejecting claims 12 and 15-19 under 35 U.S.C. § 102(b) and claims 14, 37, 39-50, and 52 under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

gvw

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